

## **REMARKS**

Applicant thanks the Examiner for the very thorough consideration given the present application. Claims 1-13 are pending in the present application. The Examiner is respectfully requested to reconsider and withdraw his rejections in view of the amendments and remarks as set forth below.

### **I. Drawings**

Applicant has amended the drawings to overcome certain informalities and has attached herewith a Request for Approval of Drawings Changes.

### **II. Claim Rejections Under 35 U.S.C. §§ 102 and 103**

Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Peterson (3860930) or Fitzpatrick (4635067). This rejection is respectfully traversed.

Applicant asserts that independent Claims 1, 4, 7, and 9 have been amended to include the limitation of "an encoder to track said azimuthal axis of rotation and provide feedback to said motor". Applicant respectfully submits that Peterson and Fitzpatrick fail to teach or suggest an encoder for tracking the azimuthal axis of rotation and thus provide feedback to the motor. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson or Fitzpatrick in view of Sefton (4831384).

Applicant notes that claims 12 and 13 depend from independent claim 9 which is now believed to be patentable and in condition for allowance. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

### III. Added Claims

Applicant has added new Claims 14-17 for consideration. Support for the new claims can be found throughout the specification and drawings as originally filed. As such, no new matter is being added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the new claims and remarks contained herein.

### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: Mark D. Elchuk  
Mark D. Elchuk  
Reg. No. 33,686

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

MDE/MAC/ca

## **ATTACHMENT FOR CLAIM AMENDMENTS**

The following is a marked up version of each amended claim in which underlines indicates insertions and brackets indicate deletions.

1. (Amended) A method for mounting a rotatable reflector antenna having a main reflector with outermost side portions and an axial center, to reduce a radius of a swept arc of said main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a platform;

using a motor to rotate said platform about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said main reflector on said platform such that said azimuthal axis of rotation is disposed forwardly of a plane extending perpendicularly through said axial center of said main reflector.

4. (AMENDED) A method for mounting a rotatable reflector antenna having a main reflector with outermost lateral side portions and an axial center, on an aircraft, in a manner which reduces a radius of a swept arc of said lateral side portions of said main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a member adjacent an outer skin of said aircraft;

using a motor to rotate said member, and thereby said main reflector, about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said azimuthal axis of rotation forwardly of a plane extending perpendicular to said axial center of said main reflector.

7. (AMENDED) A method for mounting a rotatable reflector antenna having a curved main reflector with outermost lateral side portions and an axial center, to reduce a radius of a swept arc of said main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a platform;

using a motor to rotate said platform about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said main reflector on said platform such that said azimuthal axis of rotation of said platform is forwardly of said axial center of said main reflector.

9. (AMENDED) An antenna adapted to be rotated about an azimuthal axis of rotation in a manner which reduces the radius of an envelope within which said antenna moves during rotation of said antenna, said antenna comprising:

a curved main reflector having an axial center and outermost lateral side edges;

a platform for supporting said curved main reflector;

a motor for rotating said platform about said azimuthal axis; and

an encoder to track said azimuthal axis and provide feedback to said motor;

wherein said azimuthal axis is disposed, relative to said curved main reflector, such that said azimuthal axis is located forwardly of said axial center of said curved main reflector.